

CALIFORNIA'S FIRE CHIEFS: BUILDING RELATIONSHIPS BETWEEN
EFFECTIVE LEADERSHIP AND ORGANIZATIONAL PERFORMANCE

by

Dan Michael Haverty

A Dissertation Presented to the
FACULTY OF THE SCHOOL OF POLICY, PLANNING,
AND DEVELOPMENT
UNIVERSITY OF SOUTHERN CALIFORNIA
In Partial Fulfillment of the
Requirements for the Degree
DOCTOR OF PUBLIC ADMINISTRATION

May 2003

Copyright 2003

Dan Michael Haverty

Leave Blank for Signature page

DEDICATION

It has been with a gentle hand, soft reminders, loving understanding, endless patience, active listening, and constant encouragement that this study has been accomplished. For these acts of love and kindness, I dedicate this Dissertation to my wife, Terri. May all who come to this be as blessed as I.

To those firefighters who strive to become leaders and to those who already struggle with the challenge, I hope some of the ideas that follow will aid in your efforts.

ACKNOWLEDGEMENTS

Without the participation of the following fire chiefs, this study would not have been possible. I would like to thank Fire Chief Anthony Beck, Long Beach Fire Department; Fire Chief Ettore Berardinelli, Santa Monica Fire Department; Fire Chief Dave Carlson, Riverside Fire Department; Fire Chief Rose Conroy, Davis Fire Department; Fire Chief Doug Hannink, Modesto Fire Department; Fire Chief James Hardiman, Chula Vista Fire Department; Fire Chief Phil Kleinheinz, Santa Clara Fire Department; Fire Chief Doug Matter, La Mesa Fire Department; Fire Chief William McDonald, San Mateo City Fire Department; Fire Chief Kenneth Mitten, Merced Fire Department; Fire Chief Edward R. Montez, Redwood City Fire Department; Fire Chief Robert O'Donnell, Daly City Fire Department; Fire Chief Robert Osby, San Diego Fire Department; Fire Chief Tony Pini, Santa Rosa Fire Department; Fire Chief Larry Pitzer, San Bernardino Fire Department; Fire Chief Michael Pretz, Lodi Fire Department; Fire Chief Gerald A. Simon, Oakland Fire Department; Fire Chief Dennis Smith, Sacramento Fire Department; and Fire Chief Dennis Van Der Maaten, Carlsbad Fire Department for their participation, interest in the project, and warm welcome during my site visits.

As an example of excellence in leadership, I never had to look beyond my Fire Chief, Rick Martinez. I appreciate his example, friendship, and long discussions about the fire service..."It doesn't get any better than this!"

I am very fortunate to have colleagues who have paved a road before me and continue to pull me along. I would like to thank my friends at USC, Dr. Richard Callahan, DPA, who steadily encourages and challenges; Dr. Catherine Horiuchi, DPA, who provides questions and provoking thought; and Dr. Lorraine McCall, DPA, who nurtures and supports, always with the federal perspective.

Dr. G. Ronald Gilbert, Ph.D. allowed me to use his Leadership Effectiveness Assessment as a tool which is the basis for the quantitative portion of this study. He also generously offered his considerable expertise in the study of leadership. Thank you very much. Also, my appreciation goes to Jan Gilbert, who input the initial survey data.

I have been the beneficiary of the wisdom, teachings, and guidance of my Dissertation Committee members and would like to thank each of them. My Chairperson, Dr. Ross Clayton, Ph.D., has provided me with an abundance of direction and encouragement throughout this Doctoral program. For your generous support and thoughtful discussions, I am very grateful.

To Dr. Chester A. Newland, Ph. D. and Dr. Joseph S. Wholey, Ph. D. I owe the student's debt. You each have freely shared your knowledge, experience, and assistance with this study. I hope to continue to integrate the values and ideas you have given to me in my professional work and life.

TABLE OF CONTENTS

	Page
Dedication	ii
Acknowledgements	iii
List of Tables	ix
List of Figures	xi
Abstract	xiv
<u>CHAPTERS</u>	
I. Introduction	1
Research Questions	2
California's Fire Service	3
Background of the Problem	4
Purposes of the Study	7
Assumptions	7
Limitations	8
Definitions	9
Organization of this Dissertation	12
II. Literature Review	14
Introduction	14
A Brief History of Management and Leadership	14
Leader Member Exchange Theory	21
Transactional Leadership	24

	Page
Transformational Leadership	28
Public Leadership	35
Fire Service Leadership	44
Performance Measurement	49
Summary	53
III. Methodology	57
Description of Research Methodology	57
Research Design	58
Selection of Participants	60
Instrumentation and Field Procedures	63
Data Collection and Recording	67
Data Processing and Analysis	68
Methodological Assumptions and Limitations	69
Proposition and Hypotheses	72
Summary	77
IV Findings	78
Introduction	78
Research Question 1: What areas of fire department administration capture the attention of today's fire chiefs?	82
The Human Resource Frame	83
The Symbolic Frame	85

	Page
The Structural Frame	86
The Political Frame	87
The Performance Frame	88
Summary	97
Research Question 2: What are the relationships between fire chief characteristics and their perceived leadership effectiveness, as viewed by their followers?	97
Proposition ₁ : Ratings of employees' productivity are related to employees' perceptions of their fire chief's leadership effectiveness.	98
Hypothesis ₁ : The fire chief's tenure is related to employees' perceptions of their fire chief's leadership effectiveness.	110
Hypothesis ₂ : The fire chief's level of education is related to employees' perceptions of their fire chief's leadership effectiveness.	116
Summary	125
Research Question 3: What are the relationships between fire chief's leadership effectiveness and measures of organizational productivity?	126
Hypothesis ₃ : There is a relationship between a fire chief's leadership effectiveness measures and the organization's input resource of budget dollars per capita spent.	129
Hypothesis ₄ : There is a relationship between a fire chief's leadership effectiveness measures and the organization's intermediate outcome performance measurement of residential structure fires per 1,000 population served.	137

	Page
Summary	146
V Summary and Discussion	147
Statement of the Problem	148
Summary of the Results	151
Implications of the Results	158
Recommendations for Future Research	172
Conclusion	173
Bibliography	174
Appendices	
A. Research Introductory Letter to Fire Chiefs	184
B. Orientation Letter to Fire Chiefs and Senior Staff for Surveys Mailed to Participants	185
C. Leadership Effectiveness Assessment Information for Fire Chiefs	186
D. Leadership Effectiveness Assessment Information for Senior Staff Members	187
E. Edited Field Notes from Fire Chief and Senior Staff Interviews	188
F. Map of Fire Departments participating in Study	214
G. Major LEA Factors Scores	215
H. LEA Factor Scores in Mission Oriented Behavior	216
I. LEA Factor Scores in Empowerment Behavior	217
J. LEA Factor Scores in Relationship Behavior	217

LIST OF TABLES

TABLE	Page
1. Research Variables	59
2. California Fire Departments Participating in the ICMA studies	80
3. Fire Chief Characteristics “a”	81
4. Fire Chief Characteristics “b”	81
5. Follower Characteristics “a”	81
6. Follower Characteristics “b”	82
7. Follower Characteristics “c”	82
8. What about the fire department is important to today’s fire chiefs?	90-91
9. What are the major challenges for today’s chief officers?	93-94
10. What advice on leadership do today’s chief officers have to offer?	95-96
11. Comparison of Interviewee Responses by Analytic Frame	97
12. P ₁ - Statistical Relationships Showing the Association Between “Best Productivity” and Select LEA Measures	99
13. Fire Chief tenure and LEA Score By Rank	111
14. H ₁ - Statistical Relationships Showing the Association Between Fire Chief Tenure and Select LEA Measures	112
15. Fire Chief Education and LEA Score By Rank Order	118
16. H ₂ – Statistical Relationships Showing the Association Between Fire chief Education and Select LEA Measures	119
17. Budget Spending Per Capita and LEA Score By Rank Order	130

LIST OF TABLES (CONTINUED)

TABLE	Page
18. H ₃ – Statistical Relationship Showing the Association Between Budget Spending Per Capita and Select LEA Measures	131
19. Residential Structure Fires Per 1,000 population Served And LEA Score By Rank Order	138
20. H ₄ – Statistical Relationships Showing the Association Between Residential Structure Fires Per 1,000 population Served and Select LEA Measures	139
21. Five Frame matrix for Leadership Strategies	153-155

LIST OF FIGURES

FIGURE	Page
1. LMX Theory – Leader/Member Exchange Relationship	23
2. Transactional Leadership Theory	27
3. Evolution Towards Transformation	33
4. Typical Fire Department Structure	45
5. Methodological Logic Path	69
6. Percentage Breakdown Of The Frames When Answering The Question, “What about the FD is important to today’s chief officers?”	92
7. Percentage Breakdown Of The Frames When Answering The Question, “What are the major challenges for today’s chief officers?”	94
8. Percentage Breakdown Of The Frames When Answering The Question, “What advice on leadership do today’s chief officers have to offer?”	96
9. Ratings Of Best productivity Compared To Total LEA Score	100
10. Ratings Of Best productivity Compared To Mission Oriented Behavior	101
11. Ratings Of Best productivity Compared To Team Building Behavior	102
12. Ratings Of Best productivity Compared To Relationship Behavior	103
13. Ratings Of Best productivity Compared To Character	104
14. Ratings Of Best productivity Compared To Forceful Behavior	105

LIST OF FIGURES (continued)

FIGURE	Page
15. Ratings Of Best productivity Compared To Industrious Behavior	106
16. Ratings Of Best productivity Compared To Authoritative Behavior	107
17. Ratings Of Best productivity Compared To Partner Behavior	108
18. Ratings Of Best productivity Compared To Straightforwardness Behavior	109
19. LEA Factors EMPB, CAL, and FRI Compared To Fire Chief Tenure	112
20. Ratings Of Total LEA Score Compared to Fire Chief Tenure	113
21. Ratings Of Empowerment Behavior Compared to Fire Chief Tenure	114
22. Ratings Of Calming Influence Behavior Compared to Fire Chief Tenure	115
23. Ratings Of Friend Behavior Compared to Fire Chief Tenure	116
24. Comparing REL, CHAR, STR, PAR, And FRI To Fire Chief Education	117
25. Ratings Of Total LEA Score Compared To Fire Chief Education	120
26. Ratings Of Relationship Behavior Compared To Fire Chief Education	121
27. Ratings Of Character Compared To Fire Chief Education	122
28. Ratings Of Straightforwardness Behavior Compared To Fire Chief Education	123

LIST OF FIGURES (continued)

FIGURE	Page
29. Ratings Of Partner Behavior Compared To Fire Chief Education	124
30. Ratings Of Friend Behavior Compared To Fire Chief Education	125
31. Budget Dollars Per Capita Spent Compared To Total LEA Score	132
32. Budget Dollars Per Capita Spent Compared To Relationship Behavior	133
33. Budget Dollars Per Capita Spent Compared To Dependable Behavior	134
34. Budget Dollars Per Capita Spent Compared To Enjoyable Behavior	135
35. Budget Dollars Per Capita Spent Compared To Organizational Outreach Behavior	136
36. Budget Dollars Per Capita Spent Compared To Friend Behavior	137
37. Residential Structure Fires Per 1,000 Population Served Compared To Total LEA Score	140
38. Residential Structure Fires Per 1,000 Population Served Compared To Mission Oriented Behavior	141
39. Residential Structure Fires Per 1,000 Population Served Compared To Industrious Behavior	142
40. Residential Structure Fires Per 1,000 Population Served Compared To Friend Behavior	143
41. Residential Structure Fires Per 1,000 Population Served Compared To Dependable Behavior	144

LIST OF FIGURES (continued)

FIGURE	Page
42. Residential Structure Fires Per 1,000 Population Served Compared To Followership Behavior	145

ABSTRACT

The purposes of this study are to determine what fire chiefs from selected departments across California identify are the leading problems they face; relay the measures of effectiveness these chiefs value as significant; and categorize the collective advice of nearly one-hundred senior active fire officers on what a fire chief assuming command of a department should do to become a more effective chief. Then, this research examines the relationships between fire chief characteristics and the leadership dimensions of mission accomplishment, empowerment, relationship, team building, and personal character. (Gilbert, Hannan, and Flaggert, 2000). Finally, this work tests fire chiefs' effectiveness scores compared to measures of organizational productivity.

This study uses descriptive and correlation research methods. Data was collected by using thirteen site visits and meeting with department fire chiefs and their senior staff. Nineteen departments submitted a Leadership Effectiveness Assessment (LEA) yielding one-hundred thirty-eight respondents. The LEA evaluated the chiefs in five main leadership behaviors and thirteen subcategories using subordinate ratings. The survey results were tested using cross-tabulation statistics to determine relationships between LEA behavior factors and ratings of subordinate productivity and select leader characteristics. Significant LEA factors were

also tested against the department's per capita spending and the rate of fire in the community to identify significant relationships.

By examining the interview data using a five frames leadership taxonomy (Human Resource, Symbolic, Structural, Political, and Performance) five areas for leadership improvement and activity surfaced. These areas include leader self-development, leadership approach, department member development, organizational development, and the department's leadership role in the community. These areas seem to arise naturally out of the theoretical bases provided in Leader/Member Exchange theory, Transactional Leadership theory, and Transformational Leadership theory; their common element being the presence of effective and mutually satisfying relationships which achieve common goals.